01/11/2004 10805624

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626KAS

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	JUL 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS	4	AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS	5	AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS	6	AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS	7	AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS	8	AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS	9	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS	10	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	11	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS	12	SEP 27	STANDARDS will no longer be available on STN
NEWS	13	SEP 27	SWETSCAN will no longer be available on STN
NEWS	14	OCT 28	KOREAPAT now available on STN

NEWS EXPRESS	OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:51:25 ON 01 NOV 2004

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 15:51:28 ON 01 NOV 2004

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 29, 2004 (20041029/UP).

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'REGISTRY' ENTERED AT 15:51:44 ON 01 NOV 2004

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 31 OCT 2004 HIGHEST RN 773042-36-7
DICTIONARY FILE UPDATES: 31 OCT 2004 HIGHEST RN 773042-36-7

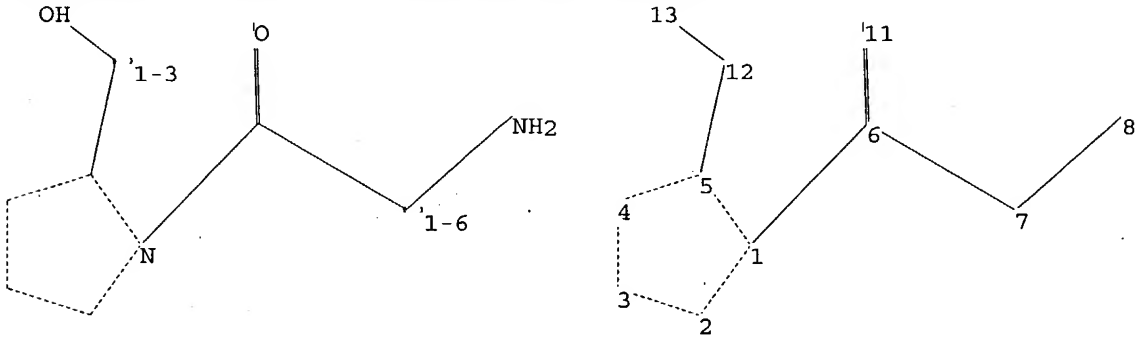
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\10805624.str



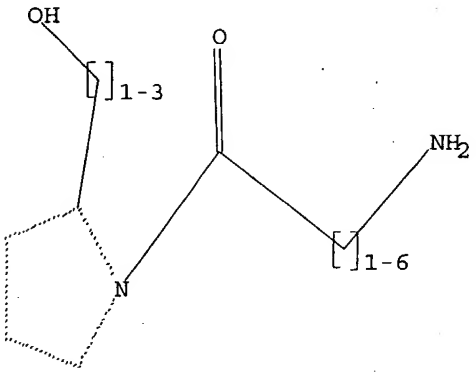
chain nodes :
6 7 8 11 12 13
ring nodes :
1 2 3 4 5

chain bonds :
1-6 5-12 6-7 6-11 7-8 12-13
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 1-6 2-3 3-4 4-5 6-11 7-8 12-13
exact bonds :
5-12 6-7
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 11:CLASS
12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> D
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1
SAMPLE SEARCH INITIATED 15:52:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 16801 TO ITERATE

6.0% PROCESSED 1000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 328261 TO 343779
PROJECTED ANSWERS: 77493 TO 85139

L2 50 SEA SSS SAM L1

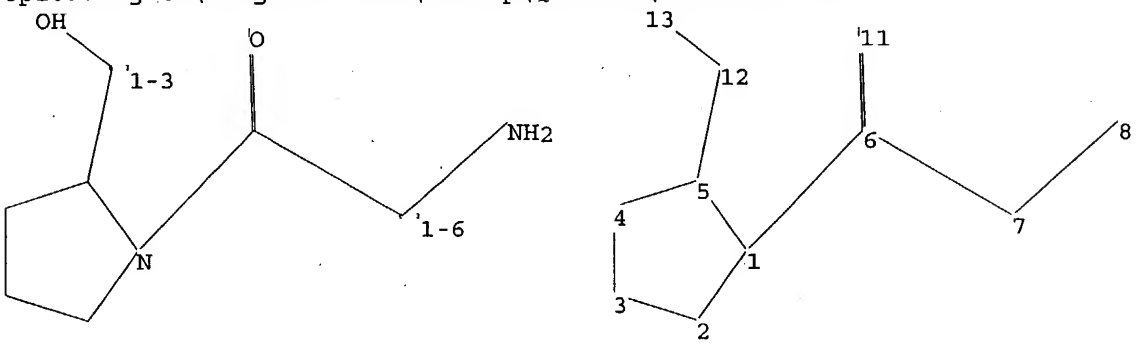
=> S L1 FULL
FULL SEARCH INITIATED 15:52:34 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 335935 TO ITERATE

100.0% PROCESSED 335935 ITERATIONS 77088 ANSWERS
SEARCH TIME: 00.00.08

L3 77088 SEA SSS FUL L1

=>
Uploading C:\Program Files\Stnexp\Queries\108056241.str

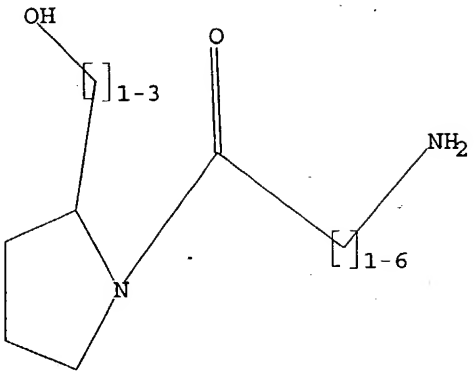


chain nodes :
6 7 8 11 12 13
ring nodes :
1 2 3 4 5
chain bonds :
1-6 5-12 6-7 6-11 7-8 12-13
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 1-6 6-11 7-8 12-13
exact bonds :
2-3 3-4 4-5 5-12 6-7
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 11:CLASS
12:CLASS 13:CLASS

L4 STRUCTURE UPLOADED

=> D
L4 HAS NO ANSWERS
L4 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> S L4
SAMPLE SEARCH INITIATED 15:54:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -  16801 TO ITERATE

  6.0% PROCESSED    1000 ITERATIONS                          50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:      328261 TO   343779
PROJECTED ANSWERS:          77493 TO    85139

L5            50 SEA SSS SAM L4

=> S L4 FULL
FULL SEARCH INITIATED 15:54:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 335935 TO ITERATE

100.0% PROCESSED  335935 ITERATIONS                      77003 ANSWERS
SEARCH TIME: 00.00.12

L6         77003 SEA SSS FUL L4

=> FILE CAPLUS
COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                               ENTRY    SESSION
FULL ESTIMATED COST                           312.10     312.37

FILE 'CAPLUS' ENTERED AT 15:54:36 ON 01 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
```

FILE COVERS 1907 - 1 Nov 2004 VOL 141 ISS 19
FILE LAST UPDATED: 31 Oct 2004 (20041031/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L6
L7 46651 L6

=> D IBIB ABS HITSTR 46640-46651

L7 ANSWER 46640 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1954:62053 CAPLUS
DOCUMENT NUMBER: 48:62053
ORIGINAL REFERENCE NO.: 48:11000h-i
TITLE: The binding capacity of Amulin for ethereal oils
AUTHOR(S): Grimme, Cl.
CORPORATE SOURCE: Chem. Lab. Dr. Herman Ulex, Hamburg, Germany
SOURCE: Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1954), 98, 440-2
CODEN: ZLUFAR; ISSN: 0044-3026
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C.A. 48, 302c. The efficiency of Amulin for inhibiting loss of essential oil from 10 spices is demonstrated to be greater than that of powder sugar or oat-hull meal.

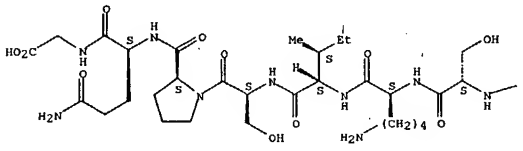
IT **161501-89-9**, Amulin
(binding capacity for ethereal oils)

RN 161501-89-9 CAPLUS

CN Glycine, L-alanyl-L-prolyl-L-arginyl-L-seryl-L-lysyl-L-isoleucyl-L-seryl-L-prolyl-L-glutaminyl- (9CI) (CA INDEX NAME)

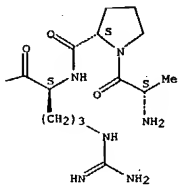
Absolute stereochemistry.

PAGE 1-A



L7 ANSWER 46640 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B



L7 ANSWER 46641 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1954:53115 CAPLUS
DOCUMENT NUMBER: 48:53115
ORIGINAL REFERENCE NO.: 48:9431g-i,9432a-b
TITLE: Specificity of prolidase: effect of alterations in the pyrrolidine ring of glycyl-L-proline
AUTHOR(S): Adams, Elijah; Davis, Neil C.; Smith, Emil L.
CORPORATE SOURCE: Univ. of Utah, Salt Lake City
SOURCE: Journal of Biological Chemistry (1954), 208, 573-8
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C.A. 47, 654f. The method of Neuberger (C.A. 39, 4868.9) gave allohydroxy-L-proline(I), [α]20D -58.2° (c 2, water). I(11.7 g.) in 10 vols. of absolute, EtOH at 0° treated with dry HCl gave 12.2 g. Et ester (II)-HCl, m. 148-51°. Carbobenzoxyglycyl chloride (III) added to II from 4.0 g. of the HCl salt in cold EtOAc, the mixture shaken 10 min. (ice bath), then with cold. dilute bicarbonate, the EtOAc layer concentrated in vacuo, the ester (6 g.) in Me2CO treated portionwise during 20 min. with 17.5 cc. of N NaOH, the product acidified to Congo red and the Me2CO removed yielded 1.9 g. carbobenzoxyglycylallohydroxy-L-proline (IV), m. 187-8°. IV (1.35 g.) hydrogenated over Pd black in MeOH containing AcOH yielded 0.8 g. glycylallohydroxy-L-proline (V), [α]21D -86.0° (c 2.35, water). N-Acetyl-hydroxy-L-proline and N-acetyl-O-methylhydroxy-L-proline Me ester yielded 4-methoxy-L-proline (VI), [α]20D -56° (c 2, water); Et ester-HCl (VII) m. 150-2°. III (3.3 g.) and the ester from 2.6 g. VII yielded 0.4 g. glycyl-4-methoxy-L-proline (VIII), [α]21D -99.5° (c 1, water). The relative rates of hydrolysis of the following substrates by prolidase were determined and the order of susceptibility was found to be: glycyl-L-proline > V > glycylhydroxy-L-proline = glycylsarcosine » VIII. It is suggested that alteration in the pyrrolidine ring of glycyl-L-proline influences the rate of hydrolysis by prolidase because of a steric effect on the interaction of the substrate with the enzyme rather than an effect on the strength of the peptide bond. The specificity of prolidase requires in the substrate the free amino and carboxyl groups, the imido N of the peptide bond, and a relatively rigidly defined size and shape of the imido N substituents.

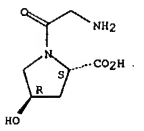
IT **24587-32-4**, Proline, 1-glycyl-4-hydroxy-, L-
(prolidase action on)

RN 24587-32-4 CAPLUS

CN L-Proline, glycyl-4-hydroxy-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L7 ANSWER 46641 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

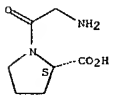


IT **704-15-4**, Proline, 1-glycyl-, L-
(prolidase action on, and derivs.)

RN 704-15-4 CAPLUS

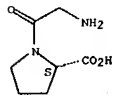
CN L-Proline, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 46642 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1954:3972 CAPLUS
DOCUMENT NUMBER: 48:3972
ORIGINAL REFERENCE NO.: 48:772b-c
TITLE: Peptides isolated from a partial hydrolyzate of steer-hide collagen
AUTHOR(S): Kroner, Thomas D.; Tabroff, Wm.; McGarr, John J.
CORPORATE SOURCE: United Shoe Machinery Corp., Beverly, MA
SOURCE: Journal of the American Chemical Society (1953), 75, 4084-6
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The partial hydrolyzate obtained by treating the collagen 4 days at 37° with concentrated HCl on treatment with XE-64 and IR-4B yielded leucine, leucylalanine, methionine, leucylalanine, valylglycine, proline, alanine, glycine, alanylglycylalanine, glycylalanine, glycylglycine, threonylglycine, serine, serylglycine, and hydroxyprolylglycine. The amino acids and peptides were isolated as the dinitrophenyl derivs.
IT **704-15-4**, Proline, 1-glycyl-
(from collagen (steer-hide) partial hydrolyzate)
RN 704-15-4 CAPLUS
CN L-Proline, glycyl- (9CI) (CA INDEX NAME)

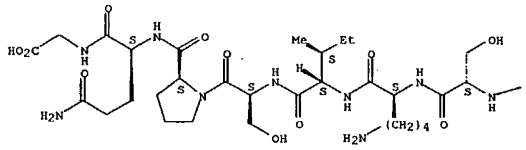
Absolute stereochemistry.



L7 ANSWER 46643 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1954:1650 CAPLUS
DOCUMENT NUMBER: 48:1650
ORIGINAL REFERENCE NO.: 48:302b-d
TITLE: The maintenance of condiment capacity of spices on fine grinding
AUTHOR(S): Grimme, Clemens
CORPORATE SOURCE: Chem. Lab. Dr. Herman Ulex, Hamburg, Germany
SOURCE: Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1953), 97, 191-3
CODEN: ZLUFAR; ISSN: 0044-3026
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The efficiency of "Amulin" (composition: H2O 9.1, protein 11.5, fat 1.7, carbohydrate 76.6, fiber 0.4, and ash 0.7) at 10 and 20% is compared with control samples for inhibiting loss of essential oils on grinding 17 spices in an elec. mill. The residual essential oil content (original unground = 100%) results were: ground controls 72.2-94.0, ground with 10% "Amulin" 84.1-100, ground with 20% "Amulin" 91.6-100%. The material gives
a strong to absolute protection against loss of essential oils.
IT **161501-89-9**, Amulin
(spice grinding with)
RN 161501-89-9 CAPLUS
CN Glycine,
L-alanyl-L-prolyl-L-arginyl-L-seryl-L-lysyl-L-isoleucyl-L-seryl-L-prolyl-L-glutaminyl- (9CI) (CA INDEX NAME)

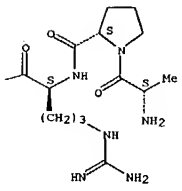
Absolute stereochemistry.

PAGE 1-A



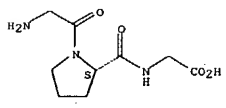
L7 ANSWER 46643 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B



L7 ANSWER 46644 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1953:62461 CAPLUS
DOCUMENT NUMBER: 47:62461
ORIGINAL REFERENCE NO.: 47:10627g-i
TITLE: The hydrolysis of proline peptides by a prolineless mutant of Escherichia coli
AUTHOR(S): Stone, David
CORPORATE SOURCE: Yale Univ.
SOURCE: Journal of Biological Chemistry (1953), 202, 821-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 47, 8831a. A study was made of the effects of aerobic and anaerobic incubation on the growth response of a prolineless mutant of E. coli. As compared with stationary cultures under partial anaerobiosis, shake cultures show marked increases in the lag period and decreases in the growth rate when glycylprolylglycine (I) supplies the nutritional requirement. Under anaerobic conditions the long lag periods shown in the
presence of I and prolylglycine are greatly reduced. The hydrolysis of peptides of proline by saline exts. of the cells of the mutant was studied. In the presence of Mn and a SH compound the exts. hydrolyzed all
the peptides tested. The significance of this finding is discussed in relation to the growth response of the mutant when the cultures are supplied with peptides of proline.
IT **2441-63-6**, Glycine, N-(1-glycylprolyl)-
(effect on metabolism of Escherichia coli)
RN 2441-63-6 CAPLUS
CN Glycine, glycyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 46645 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1953:54754 CAPLUS
DOCUMENT NUMBER: 47:54754
ORIGINAL REFERENCE NO.: 47:9263d-i
TITLE: Peptidases of erythrocytes. III. Tripeptidase
AUTHOR(S): Adams, Elijah; Davis, Neil C.; Smith, Emil L.
CORPORATE SOURCE: Univ. of Utah, Salt Lake City
SOURCE: Journal of Biological Chemistry (1952), 199, 845-56
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

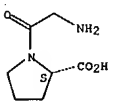
AB cf. C.A. 47, 654d. N-(N-Carbobenzoxyglycyl)-β-alanine (4.2 g.) moistened with CHCl3, cooled to 0°, treated with 2.1 cc. Et3N, then with 3 cc. iso-BuO2CCl, let stand 10 min. at 0°, added to the ester (in ice-cold CHCl3) from 2.3 g. β-alanine Et ester-HCl (I), and the mixture let stand 15 min. at room temperature, heated to boiling, and cooled yielded 3 g. N-[N-(N-carbobenzyloxyglycyl)-β-alanyl]-β-alanine (II) Et ester, m. 138-9°; 2 g. of the ester in aqueous Me2CO treated portionwise during 15 min. with 5.8 cc. M NaOH yielded 1.5 g. II, m. 179-80°. II (1 g.) on hydrogenation gave 0.55 g. N-(N-glycyl-β-alanyl)-β-alanine (III). N-(N-Carbobenzyloxy-β-alanyl)glycine Et ester (5.8g.) and 2 cc. 95% H4N2.H2O let stand several hrs. yielded 5.5 g. hydrazide (IV), m. 155-6°. The azide from 4.5 g. IV and the ester from 2.3 g. I in EtOAc let stand 48 h. at room temperature yielded 4 g. N-[N-(N-carbobenzoxy-β-alanyl)glycyl]-β-alanine Et ester (V), m. 143-4°. V (3.6 g.) with 10.4 cc. M NaOH 30 min. in Me2CO gave 2.8 g. N-[N-(N-carbobenzyloxy-β-alanyl)glycyl]-β-alanine, m. 187-8°; 2 g. of which yielded 1.1 g. N-(N-β-alanyl-glycyl)-β-alanine (VI). N-Carbobenzyloxy-β-alanine (22.1 g.) and the ester from 15.4 g. I let stand overnight in CHCl3 yielded 14 g. N-(N-carbobenzoxy-β-alanyl)-β-alanine, m. 84-6°; hydrazide (VII) m. 185-7°. The azide from 6.8 g. VII and the ester from 4.2 g. H2NCH2CO2Et.HCl in EtOAc let stand 48 h. at room temperature yielded 3.3 g. N-[N-(N-carbobenzyloxy-β-alanyl)-β-alanyl]glycine Et ester (VIII), m. 148-9°. VIII (3.6 g.) gave 2.9 g. acid, m. 196-8°; 2 g. of which yielded 1.2 g. N-(N-β-alanyl-β-alanyl)glycine (IX). The azide from 6.8 g. VII and the ester from 4.6 g. I let stand 48 h. in EtOAc yielded 4.6 g. N-[N-(N-carbobenzyloxy-β-alanyl)-β-alanyl]alanine Et ester (X), m. 163-4°. X (4.8 g.) yielded 4 g. N-[N-(N-carbobenzyloxy-β-alanyl)-β-alanyl]-β-alanine, m. 194-5°. N-(N-β-Alanyl-β-alanyl)-β-alanine (XI). Tripeptidase (XII) was purified 500-750-fold from hemolyzed horse erythrocytes. XII hydrolyzes triglycine optimally at pH 7.9, is not activated by added metal ions, and is strongly inhibited both by Cd and cysteine. Unlike XII from calf thymus, all substrates were hydrolyzed by the erythrocyte XII according to 1st-order kinetics. N-(N-L-Prolylglycyl)glycine is the most sensitive substrate for XII; tripeptides in which L-proline or hydroxy-L-proline are terminal are also hydrolyzed. N-(1-Glycyl-L-prolyl)glycine is completely resistant to hydrolysis; substrates for XII may possess a free imino group but require a peptide H at the susceptible linkage. Erythrocyte XII hydrolyzes N-(N-glycylglycyl)-β-alanine, N-(N-glycyl-β-alanyl)glycine, and also (more slowly)

L7 ANSWER 46645 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
N-(N-glycyl-β-alanyl)-β-alanine. Failure to hydrolyze tripeptides with a free β-NH2 group was confirmed for N-(N-β-alanylglycyl)glycine, and for VI, IX, and XI. Certain types of cellophane dialysis membranes rapidly inactivate XII.

IT **704-15-4**, Proline, 1-glycyl-, L- **2441-63-6**, Glycine, N-(1-glycyl-L-prolyl)-
(tripeptidase effect on hydrolysis of)

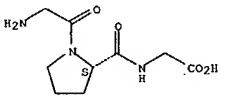
RN 704-15-4 CAPLUS
CN L-Proline, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2441-63-6 CAPLUS
CN Glycine, glycyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 46646 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1953:54753 CAPLUS
DOCUMENT NUMBER: 47:54753
ORIGINAL REFERENCE NO.: 47:9262g-i,9263a-d
TITLE: Partial purification and specificity of iminopeptidase
AUTHOR(S): Davis, Neil C.; Smith, Emil L.
CORPORATE SOURCE: Univ. of Utah, Salt Lake City
SOURCE: Journal of Biological Chemistry (1953), 200, 373-84
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

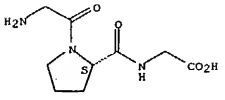
AB cf. preceding abstract; C.A. 47, 654f. The azide from 5 g. carbobenzyloxyhydroxy-L-proline in EtOAc added at 0° to the ester from 3.6 g. N-glycylglycine Et ester-HCl (I) in EtOAc at 0° and the mixture let stand overnight at room temperature yielded 70% N-[N-(N-carbobenzyloxyhydroxy-L-prolyl)glycyl]glycine Et ester (II), m. 144-5°. Carbobenzyloxyhydroxy-L-proline (5.3 g.) in 10 cc. cold CHCl3 and 2.8 cc. Et3N cooled to -5°, the mixture treated dropwise with 3.8 cc. iso-BuO2CCl, let stand 30 min., the free ester from 4 g. I in CHCl3 added, the mixture let stand overnight, concentrated in vacuo, and the residue extracted with hot EtOAc yielded 38% II, m. 144-5°, [α]D21 -11.1° (c 1, EtOH). II (3 g.) in 20 cc. water treated during 20 min. with four 2-cc. portions of N HCl, and the mixture let stand 10 min., acidified to Congo red with 6N HCl, and concentrated to dryness in vacuo yielded 2.5 g. N-[N-(carbobenzyloxyhydroxy-L-prolyl)glycyl]glycine (III), m. 159.5-60°, [α]D21 -53.9° (c 1, water). III (2.5 g.) on reduction yielded 1.60 g. N-[N-(hydroxy-L-prolyl)glycyl]glycine (IV), m. 216-17° (decomposition), [α]D21 -13.2° (c 1, water). 1-Carbobenzyloxy-L-proline (3.8 g.) and 2.2 cc. Et3N treated dropwise with 2 cc. iso-BuO2CCl, then after 30 min. with the ester from 3 g. I yielded 3.7 g. N-[N-(1-carbobenzyloxy-L-prolyl)glycyl]glycine Et ester (V), m. 120-20.5°, [α]D21 -23.1° (c 1, EtOH). V (3.91 g.) kept 1 hr. at room temperature with 11 cc. N NaOH in Me2CO-water yielded 2.1 g. N-[N-(1-carbobenzoxy-L-prolyl)glycyl]glycine (VI), m. 134-5°, [α]D21 -56° (c 1, water). VI (2 g.) on reduction yielded 1.1 g. N-(N-L-prolylglycyl)glycine (VII), m. 211-12° (decomposition). N-[N-(1-Carbobenzyloxyglycyl)-L-prolyl]glycine (6.15 g.), 2.8 cc. Et3N, 2.62 cc. iso-BuO2CCl, and the ester from 3.07 g. I yielded 64% gum, which with 14 cc. N NaOH in aqueous Me2CO 30 min. at room temperature yielded 2 g. N-[N-(1-carbobenzyloxyglycyl)-L-prolyl]glycine (VIII), m. 144-5°, [α]D21 -80.9° (c 1, water). VIII (1.75 g.) on reduction yielded 1 g. N-(N-glycyl-L-prolyl)glycine (IX), [α]D21 -108.4° (c 1, water). N-(1-Carbobenzyloxy-L-prolyl)-L-proline (3 g.) hydrogenated 6 hrs. in 5 cc. AcOH and 50 cc. absolute EtOH yielded 1 g. N-L-prolyl-L-proline (X), [α]D21 -160.2° (c 1, water). N-L-Prolylhydroxy-L-proline (XI) (59% yield) [α]D21 -160.3° (c 1, water). Iminodipeptidase from swine kidney cortex was purified "30-fold." The hydrolysis of N-L-prolylglycine and N-(hydroxy-L-prolyl)glycine by Mn-activated iminodipeptidase increases with increasing pH up to pH 9, at which point instability of the enzyme precludes accurate measurements. The purified enzyme acts only on prolyl or hydroxyprolyl

L7 ANSWER 46646 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
dipeptides which possess both a free α-amino and a free α-carboxyl group adjacent to the sensitive bond. Iminodipeptides contg. glutamic or aspartic acid are not attacked by the enzyme. Crude exts. of swine kidney cortex contain metal-activated enzymes which hydrolyze the amides of L-proline and hydroxy-L-proline, and certain tripeptides contg. these imino acids.

IT **2441-63-6**, Glycine, N-(1-glycyl-L-prolyl)-
(preparation of)

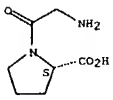
RN 2441-63-6 CAPLUS
CN Glycine, glycyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 46647 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1949:50972 CAPLUS
DOCUMENT NUMBER: 43:50972
ORIGINAL REFERENCE NO.: 43:9148c-f
TITLE: Utilization of amino acids and peptides by mutant strains of Escherichia coli
AUTHOR(S): Simmonds, Sofia; Frutop, Joseph S.
SOURCE: Journal of Biological Chemistry (1949), 180, 635-46
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 41, 5575d. Growth curves are presented for a phenylalanine-less (I), a proline-less (II), and a leucine-less (III) strain of Escherichia coli and were obtained by measuring the extent of bacterial growth as a function of time at varying concns. of the appropriate amino acid and related peptides. I gave the same growth response to equimolar concns. of L-phenylalanine and glycyl-L-phenylalanine. II grew approx. twice as well in the presence of glycyl-L-proline as with L-proline, when the growth was limited to the amount of proline (free amino acid or dipeptide) in the medium. III required a longer period for the initiation of rapid growth in the presence of glycyl-L-leucine than with L-leucine. The duration of this lag-phase increased with the increased concentration of the dipeptide. Equimolar concns. of L-leucine and glycyl-L-leucine produced the same amount of bacterial growth. The response of III to the L-leucine and the dipeptide was independent of the composition of the medium in which the inoculum was grown. III grew slowly in the presence of L-leucinamide acetate, except when high concns. of the compound were present.
IT **704-15-4**, Proline, l-glycyl-
(utilization by prolineless strain of Escherichia coli)
RN 704-15-4 CAPLUS
CN L-Proline, glycyl- (9CI) (CA INDEX NAME)

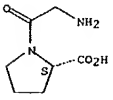
Absolute stereochemistry.



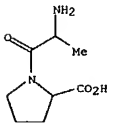
L7 ANSWER 46648 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1949:6583 CAPLUS
DOCUMENT NUMBER: 43:6583
ORIGINAL REFERENCE NO.: 43:1448a-i
TITLE: Application of peptides containing β-alanine to the study of the specificity of various peptidases
AUTHOR(S): Hanson, H. Theo.; Smith, Emil L.
SOURCE: Journal of Biological Chemistry (1948), 175, 833-48
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The ability of certain peptidases to hydrolyze β-alanine peptides is investigated. β-Alanine has not been found in proteins and the function is unknown of the β-alanine peptides found in carnosine, e.g., which is the second most abundant nitrogenous extractive of muscle. Carboxypeptidase prepared by Anson's method (C.A. 31, 7907.1) hydrolyzes carbobenzoxyglycyl-L-phenylalanine about 800 times as fast as carbobenzoxy-β-alanyl-DL-phenylalanine and it splits carbobenzoxyglycyl-L-leucine about 1600 times as fast as the carbobenzoxy-β-alanyl-L-leucine. It is evident that the intercalation of an addnl. CH2 group reduces the sensitivity of the compound by at least 1000 times as compared to the corresponding L-alanine compound Highly purified leucine amino peptidase from hog intestinal mucosa (C.A. 38, 4965.7) hydrolyzes L-leucyl-β-alanine as rapidly as L-leucinamide and almost as rapidly as L-leucylglycine. This suggests that its specificity is essentially that of an amidase and that it is capable of hydrolyzing many types of substituted amides as well as peptides. Partially purified prolidase from hog intestinal mucosa hydrolyzes glycyl-L-proline about 330 times as fast as β-alanyl-L-proline. The great reduction in the rate of hydrolysis by the insertion of a CH2 group between the free amino group and the sensitive peptide bond indicates, that this distance is quite critical Glycyl-L-leucine dipeptidase from human uterus (Smith, Federation Proc. 7, 189(1948)) hydrolyzes glycyl-L-leucine about 250 times as fast as β-alanyl-L-leucine. The presence of the β-alanine peptide inhibits the hydrolysis of glycyl-L-leucine about 35%. An extract rich in glycylglycine dipeptidase does not split β-alanylglycine or β-alanyl-β-alanine. A fresh extract of a tripeptidase from rat muscle hydrolyzes very rapidly triglycine and acts upon glycyl-β-alanylglycine as well as on diglycyl-β-alanine but hydrolyzes β-alanylglycylglycine very slowly. The following compds. and peptides were synthesized by well-known procedures: carbobenzoxyglycyl-β-alanine, needles, m. 140°; chloroacetyl-β-alanine, plates, m. 95°; glycyl-β-alanine, plates, m. 228° (decomposition); carbobenzoxy-β-alanyl-β-alanine, needles, m. 144-5°; β-alanyl-β-alanine, needles, m. 212°; carbobenzoxy-β-alanylglycine, needles, m. 146-9°; β-alanylglycine, prisms, m. 226°; carbobenzoxy-β-alanyl-L-leucine, tiny plates, m. 111°; β-alanyl-L-leucine, needles, m. 245°; L-leucyl-β-alanine, m. 214°; carbobenzoxy-β-alanyl-L-proline, needles, m. 91-93°; β-alanyl-L-proline, prisms, m. 211°; carbobenzoxy-β-alanyl-DL-phenylalanine ethyl ester, m. 88-9°; carbobenzoxy-β-alanyl-DL-phenylalanine, needles, m. 142°;

L7 ANSWER 46648 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
carbobenzoxy-β-alanylglycylglycine, m. 184-5°; β-alanylglycylglycine, m. 228°, (decompn.); carbobenzoxyglycyl-β-alanylglycine, needles, m. 177-180°; glycyl-β-alanylglycine, m. 230° (decompn.); carbobenzoxydiglycyl-β-alanine, m. 187-189°; carbobenzoxydiglycyl-β-alanine ethyl ester, m. 142°; diglycyl-β-alanine, m. 260° (decompn.); carbobenzoxy-β-alanylglycine ethyl ester, m. 95-96°; carbobenzoxy-β-alanylglycinamide, m. 176° β-alanylglycinamide acetate, m. 118-120°; carbobenzoxyglycyl-β-alanine ethyl ester, needles, m. 63-64°; carbobenzoxyglycyl-β-alaninamide, m. 179°; carbobenzoxy-β-alaninamide, plates, m. 164°; β-alaninamide acetate, prisms, m. 118°; L-alaninamide-HCl, needles, m. 196-199°; benzoyl-L-alaninamide, prisms, m. 235-240°.
IT **704-15-4**, Proline, l-glycyl-, L-
(hydrolysis of, by prolidase)
RN 704-15-4 CAPLUS
CN L-Proline, glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



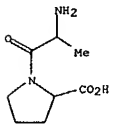
L7 ANSWER 46649 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1935:28454 CAPLUS
DOCUMENT NUMBER: 29:28454
ORIGINAL REFERENCE NO.: 29:3701g-i
TITLE: The titration constants of some amides and dipeptides in relation to alcohol and formaldehyde titrations of amino nitrogen
AUTHOR(S): Melville, James; Richardson, George M.
SOURCE: Biochemical Journal (1935), 29, 187-95
CODEN: BIJOAK; ISSN: 0264-6021
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C. A. 28, 5007.3. Titration consts. at 25° were determined for d-glutamine, d-isoglutamine, l-isoasparagine, d-glutaminylglycine, d-glutaminyl-d-glutamic acid and d-alanyl-l-proline and redetd. for d-tyrosyl-d-arginine and glycyl-l-proline. The factors influencing the magnitude of the respective pK' values are discussed. α-Amides and α-peptides possess characteristically different consts. from their β- or γ-analogs. In certain peptides the pK'NH2 values are usually low and the influence of this fact on the estimation of biol. amino N and on the study of the peptidase action is discussed. These low values of peptides from protein scission will not affect the titrimetric estimation of the extent of hydrolysis, but will require a careful selection of the proper buffers for peptidase studies to allow a more nearly constant pH during hydrolysis. The advantages of using isoglutamine as a buffer in such cases are given and the composition and stability data of buffer solns. containing it are included.
IT **3918-95-4**, Proline, l-alanyl-
(titration consts. of)
RN 3918-95-4 CAPLUS
CN Proline, l-DL-alanyl-, DL- (8CI) (CA INDEX NAME)



L7 ANSWER 46650 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1933:695 CAPLUS
DOCUMENT NUMBER: 27:695
ORIGINAL REFERENCE NO.: 27:108c-f
TITLE: Proteolytic enzymes, behavior of proline peptides
AUTHOR(S): Bergmann, Max; Zervas, Leonidas; Schleich, Hans; Leinert, Fritz
SOURCE: Z. physiol. Chem. (1932), 212, 72-84
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Proline peptides differ from all other peptides in that no H is present in the peptide linkage. Two examples were synthesized for the purpose of testing their behavior toward enzymes. The recently described method (C. A. 26, 5072) in which PhCH2O2CNHCHRCOCl is coupled with an amino acid and the product hydrogenated is especially applicable here where the usual method of peptide synthesis fails. l-Proline + PhCH2O2CNHCH2COCl → N-carbobenzoxyglycyl-l-proline, m. 156°, +Pd-H2 → glycyl-l-proline (I), m. 185°, (α)D20 -113.8°, yield 80%. l-Proline + PhCH2O2CNHCHMeCOCl → N-carbobenzoxy-d-alanyl-l-proline (not crystallized), → d-alanyl-l-proline (II), m. 178°, (α)D25 -114.4°. Similarly, sarcosine → carbobenzoxyglycylsarcosine, m. 102°, → glycylsarcosine (III), m. 220°. I and II are hydrolyzed by extract of intestinal mucosa and by fresh yeast autolyzate, but not by pancreatin. III is attacked by the aminopolypeptidase fraction of erepsin, but not by proteinase or dipeptidase. The active enzyme is probably not identical with Grassmann's prolinase which splits peptides of the prolylglycine type. It is either an aminopolypeptidase or a new enzyme. III is also resistant to dipeptidase. The presence of H in the peptide linkage is essential for the activity of dipeptidase. The cleavage of I and II is the first instance of a proteolytic liberation of carboxyl without simultaneous formation of N determinable by the Van Slyke method. This discrepancy may be expected in all proteins which contain considerable proline or hydroxyproline in N-peptide linkage.

IT **3918-95-4**, Proline, l-alanyl-
(preparation of)
RN 3918-95-4 CAPLUS
CN Proline, l-DL-alanyl-, DL- (8CI) (CA INDEX NAME)

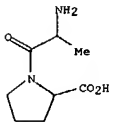


L7 ANSWER 46651 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1933:688 CAPLUS
DOCUMENT NUMBER: 25:688
ORIGINAL REFERENCE NO.: 25:77d-i
TITLE: The behavior of polypeptides containing proline toward erepsin and the trypsinkinase complex
AUTHOR(S): Abderhalden, Emil; Zumstein, Otto
SOURCE: Fermentforschung (1930), 12, 1-19
CODEN: FEFOAG; ISSN: 0367-2034
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB A series of dipeptides was prepared in which proline carries the terminal CO2H. The method consisted in coupling a haloacyl halide with l-proline and amination of the resulting haloacylproline with NH4OH. A complication encountered was the formation of hydroxyacylprolinamide which had to be separated from the dipeptide, and also in some cases a racemization of the proline. The amount of amide obtained increased with the size of the haloacyl halides used, e. g., 5-7% with ClCH2COCl, 13% with MeCHBrCOBr, 28-30% with EtCHBrCOBr, and 70-80% with Me2CHCH2CHBrCOBr. In contrast to other Me2CHCHBrCO amino acids, the proline derivative was aminated with great ease, 71% of the Br being replaced in 2 days. When proline Me ester was condensed with haloacyl halide and the product aminated by ale. NH3 both the expected anhydride and also the dipeptide ester were obtained. l-Proline in N NaOH was condensed with ClCH2COCl to form chloroacetyl-l-proline, m. 112-3°, which on amination with 25% NH4OH yielded glycolyl-l-prolinamide, m. 90°, and glycyl-l-proline, [α]D18-86.21°. By the same procedure, proline + MeCHBrCOBr → dl-α-bromopropionyl-l-proline (I), m. 137-8°, → dl-α-hydroxypropionyl-l-prolinamide, m. 109-10°, dl-alanyl-dl-proline, m. 280° and dl-alanyl-l-proline, [α]D18-92.68°. The Me ester of I + NH3 in MeOH → dl-alanyl-l-proline Me ester, m. 89-93°, and dl-alanyl-l-proline anhydride, m. 114-5°, the anhydride and dipeptide ester occurring in the proportion 1:2. Proline + dl-EtCHBrCOBr → dl-α-bromobutyryl-l-proline, m. 120-3°, → dl-α-hydroxybutyryl-l-prolinamide, m. 76-8°, dl-α-aminobutyryl-l-proline, [α]D18-45.4°, and dl-α-aminobutyryl-dl-prolinamide, m. above 300°. Proline + dl-PrCHBrCOBr → dl-α-bromovaleryl-l-proline, m. 85-7°, → dl-α-hydroxy-valeryl-l-prolinamide, m. 60°, dl-norvalyl-dl-proline, m. 258-9°, and dl-norvalyl-l-proline, [α]D18 -56.25°. Proline + dl-Me2CHCHBrCOBr → dl-α-bromoisovaleryl-l-proline (not obtained crystalline) → dl-α-hydroxyisovaleryl-l-prolinamide, dl-valyl-dl-proline, m. 275°, and dl-valyl-l-proline, [α]D18 -36.66°. Proline + BuCHBrCOBr → dl-α-bromocaproyl-l-proline, m. 69-70°, → dl-α-hydroxycaproyl-l-prolinamide (not purified), and dl-norleucyl-l-proline, m. 225-6°. Proline + Me2CHCH2CHBrCOBr → dl-α-bromoisocaproyl-l-proline (II) (previously described) → dl-α-hydroxyisocaproyl-l-prolinamide, m. 124°, and dl-leucyl-l-proline, m. 211-2°. The Me ester of II treated with NH3 in MeOH gave di-leucyl-l-proline Me ester in 85% yield; an oily

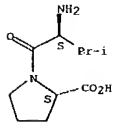
L7 ANSWER 46651 OF 46651 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
residue evidently consisted of a mixt. of amide and anhydride. These dipeptides and some of the amides and haloacylprolines were tested for enzymic hydrolysis. Trypsin-kinase attacked none of the dipeptides, and erepsin only glycylproline to a slight extent. Bromoisocaproyl-l-proline was hydrolyzed by trypsin-kinase, while bromopropionyl-l-proline remained unaltered. Neither enzyme attacked hydroxycaproyl-l-prolinamide.

IT **3918-95-4**, Proline, l-alanyl-
(and derivs.)
RN 3918-95-4 CAPLUS
CN Proline, l-DL-alanyl-, DL- (8CI) (CA INDEX NAME)



IT **20488-27-1**, Proline, l-valyl-
(preparation of)
RN 20488-27-1 CAPLUS
CN L-Proline, L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	60.64	373.01

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.40	-8.40

FILE 'REGISTRY' ENTERED AT 15:59:28 ON 01 NOV 2004

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 31 OCT 2004 HIGHEST RN 773042-36-7
DICTIONARY FILE UPDATES: 31 OCT 2004 HIGHEST RN 773042-36-7

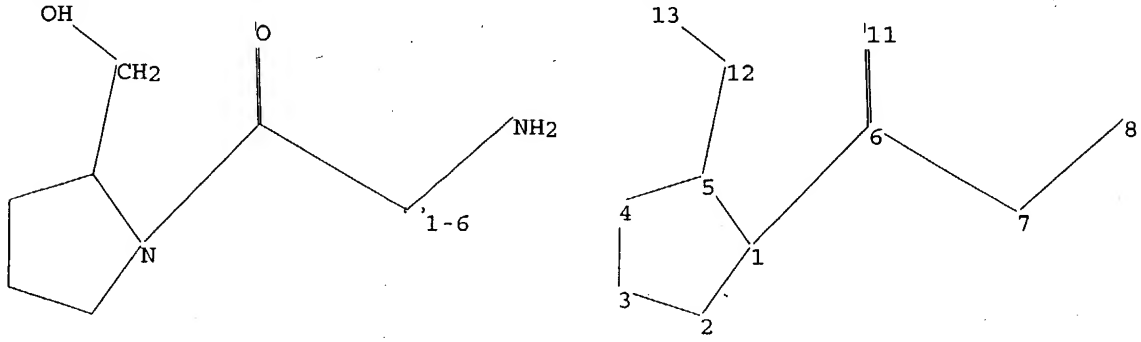
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\108056242.str



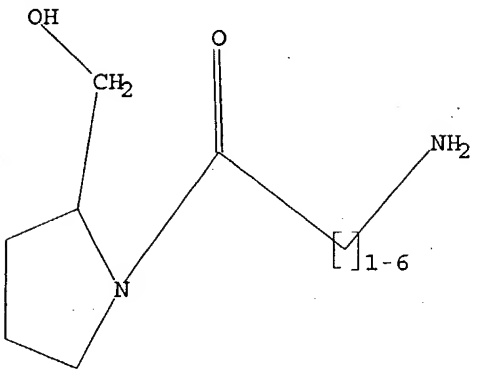
chain nodes :
6 7 8 11 12 13
ring nodes :
1 2 3 4 5
chain bonds :
1-6 5-12 6-7 6-11 7-8 12-13
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :

1-2 1-5 1-6 6-11 7-8
exact bonds :
2-3 3-4 4-5 5-12 6-7 12-13
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 11:CLASS
12:CLASS 13:CLASS

L8 STRUCTURE UPLOADED

=> D
L8 HAS NO ANSWERS
L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L8 FULL
FULL SEARCH INITIATED 16:00:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 341671 TO ITERATE

100.0% PROCESSED 341671 ITERATIONS 20 ANSWERS
SEARCH TIME: 00.00.04

L9 20 SEA SSS FUL L8

=> FILE CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.84	528.85

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.40

FILE 'CAPLUS' ENTERED AT 16:00:42 ON 01 NOV 2004

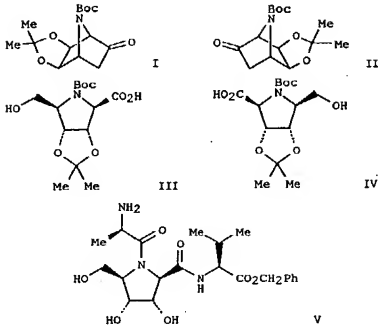
FILE COVERS 1907 - 1 Nov 2004 VOL 141 ISS 19
FILE LAST UPDATED: 31 Oct 2004 (20041031/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L9
L10 16 L9

=> D IBIB ABS HITSTR TOT

L10 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:435765 CAPLUS
DOCUMENT NUMBER: 141:140758
TITLE: Synthesis of D- and L-2,3-trans-3,4-cis-4,5-trans-3,4-Dihydroxy-5-hydroxymethylproline and Tripeptides Containing Them
AUTHOR(S): Moreno-Vargas, Antonio J.; Robina, Inmaculada; Petricci, Elena; Vogel, Pierre
CORPORATE SOURCE: Laboratoire de Glycochimie et de Synthese Asymetrique, Swiss Federal Institute of Technology (EPFL), Lausanne-Dorigny, CH-1015, Switz.
SOURCE: Journal of Organic Chemistry (2004), 69(13), 4487-4491
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

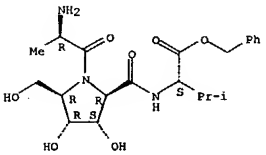


AB Enantiomerically pure (-)- and (+)-7-(tert-butoxycarbonyl)-5,6-exo-isopropylidenedioxy-7-azabicyclo[2.2.1]heptan-2-ones, I and II, resp., were prepared I and II were converted into D- and L-2,3-trans-3,4-cis-4,5-trans-N-(tert-butoxycarbonyl)-5-hydroxymethyl-3,4-isopropylidenedioxyprolines, III and IV, resp. Applying the Boc and Fmoc strategies of peptide synthesis, these compds. were used to construct two tripeptides. For example, III was incorporated into peptide synthesis to give tripeptide V.

IT **726192-28-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. preparation of (dihydroxy)hydroxymethylproline and its incorporation into tripeptides)

RN 726192-28-5 CAPLUS
CN L-Valine, D-alanyl-(3S,4R,5R)-3,4-dihydroxy-5-(hydroxymethyl)-D-prolyl-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:334930 CAPLUS
DOCUMENT NUMBER: 138:331666
TITLE: Method for re-sensitizing vancomycin resistant bacteria using agents which selectively cleave a cell wall depsipeptide
INVENTOR(S): Chiosis, Gabriela; Boneca, Ivo G.; Still, W. Clark
PATENT ASSIGNEE(S): The Trustees of Columbia University in the City of New York, USA
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

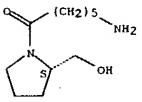
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035098	A1	20030501	WO 2002-US26975	20020823
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003125372	A1	20030703	US 2001-938746	20010823
US 6734165	B2	20040511		
EP 1427435	A1	20040616	EP 2002-768692	20020823
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2004180814	A1	20040916	US 2004-805624	20040318
PRIORITY APPLN. INFO.:			US 2001-938746 A	20010823
			WO 2002-US26975 W	20020823

OTHER SOURCE(S): MARPAT 138:331666
AB The present invention relates a method for re-sensitizing vancomycin resistant Gram-pos. bacteria in which resistance results from the conversion of an amide bond to an ester bond in the cell wall peptide precursors of the bacteria which comprises using an antibacterial amount of vancomycin or a homolog of vancomycin and an amount of an agent effective to selectively cleave the ester bond to thereby re-sensitize vancomycin resistant bacteria.

IT **376643-17-3P 376643-20-8P 376643-21-9P**
376643-22-0P 376643-23-1P 376643-24-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(re-sensitizing vancomycin resistant Gram-pos. bacteria using agents which selectively cleave ester bond of D-Ala-D-Lac cell wall depsipeptide)

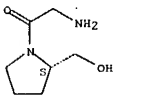
RN 376643-17-3 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(6-amino-1-oxohexyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



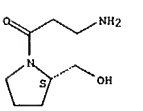
RN 376643-20-8 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(aminoacetyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



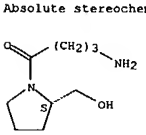
RN 376643-21-9 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(3-amino-1-oxopropyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 376643-22-0 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(4-amino-1-oxobutyl)-, (2S)- (9CI) (CA INDEX NAME)

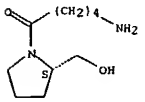
Absolute stereochemistry.



RN 376643-23-1 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(5-amino-1-oxopentyl)-, (2S)- (9CI) (CA INDEX

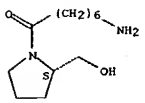
L10 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
NAME)

Absolute stereochemistry.



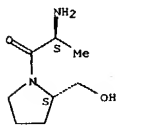
RN 376643-24-2 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(7-amino-1-oxoheptyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **518012-31-2**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(re-sensitizing vancomycin resistant Gram-pos. bacteria using agents which selectively cleave ester bond of D-Ala-D-Lac cell wall depsipeptide)
RN 518012-31-2 CAPLUS
CN 2-Pyrrolidinemethanol, 1-[(2S)-2-amino-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

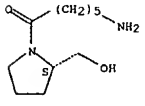
Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L10 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:643886 CAPLUS
DOCUMENT NUMBER: 136:2743
TITLE: Selective cleavage of D-Ala-D-Lac by small molecules: re-sensitizing resistant bacteria to vancomycin
AUTHOR(S): Chiosis, Gabriela; Boneca, Ivo G.
CORPORATE SOURCE: Department of Chemistry, Columbia University, New York, NY, 10027, USA
SOURCE: Science (Washington, DC, United States) (2001), 293(5534), 1484-1487
CODEN: SCIEAS; ISSN: 0036-8075
PUBLISHER: American Association for the Advancement of Science
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pathogenic enterococci are becoming resistant to currently available antibiotics, including vancomycin, the drug of last resort for Gram-pos. infections. Enterococci pose a significant public health threat, not least because of the risk of transferring vancomycin resistance to the ubiquitous Staphylococcus aureus. Vancomycin resistance is manifested by cell wall peptidoglycan precursors with altered termini that cannot bind the antibiotic. Small mols. with well-oriented nucleophile-electrophile assembly and complementary chirality to the peptidoglycan termini were identified as catalytic and selective cleavers of the peptidoglycan precursor depsipeptide. These mols. were tested in combination with vancomycin and were found to re-sensitize vancomycin-resistant bacteria to
the antibiotic.
IT **376643-17-3 376643-19-5 376643-20-8**
376643-21-9 376643-22-0 376643-23-1
376643-24-2
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(selective cleavage of D-Ala-D-Lac by small mols.: re-sensitizing resistant bacteria to vancomycin)
RN 376643-17-3 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(6-amino-1-oxohexyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

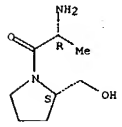


RN 376643-19-5 CAPLUS
CN 2-Pyrrolidinemethanol, 1-[(2R)-2-amino-1-oxopropyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

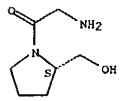
L10 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L10 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



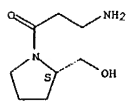
RN 376643-20-8 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(aminoacetyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



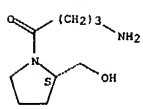
RN 376643-21-9 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(3-amino-1-oxopropyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 376643-22-0 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(4-amino-1-oxobutyl)-, (2S)- (9CI) (CA INDEX NAME)

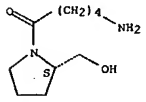
Absolute stereochemistry.



RN 376643-23-1 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(5-amino-1-oxopentyl)-, (2S)- (9CI) (CA INDEX NAME)

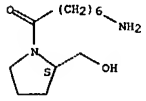
L10 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

Absolute stereochemistry.



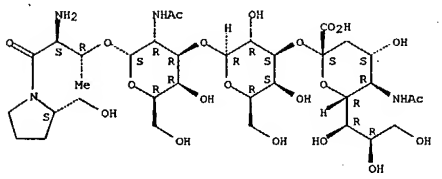
RN 376643-24-2 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(7-amino-1-oxoheptyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L10 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L10 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:539139 CAPLUS
DOCUMENT NUMBER: 133:277734
TITLE: The degradation of glycoproteins with lithium borohydride: isolation and analysis of O-glycopeptides with reduced C-terminal amino acid residue
AUTHOR(S): Arbatsky, N. P.; Likhosherstov, L. M.; Serebryakova, M. V.; Brusov, O. S.; Shibaev, V. N.; Derevitskaya, V. A.; Kochetkov, N. K.
CORPORATE SOURCE: Zelinskii Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 117334, Russia
SOURCE: Russian Journal of Bioorganic Chemistry (Translation of Bioorganicheskaya Khimiya) (2000), 26(1), 45-53
CODEN: RJBCET; ISSN: 1068-1620
PUBLISHER: MAIK Nauka/Interperiodica
DOCUMENT TYPE: Journal
LANGUAGE: English

AB By the example of fetuin and a blood-group-specific mucin from porcine stomach, we showed that, under conditions of reductive degradation of glycoproteins with LiBH4-LiOH in 70% aqueous tert-Bu alc., the reduction and cleavage of amide bonds occur much faster than the simultaneous β-elimination of carbohydrate chains O-linked with Ser and Thr residues of the peptide chain. The major degradation products containing the O-linked glycans are the O-glycosylated derivs. of 2-aminopropane-1,3-diol and 2-aminobutane-1,3-diol (the products of reduction of glycosylated Ser and Thr) and the glycopeptides containing 2-4 amino acid residues with reduced C-terminal amino acid. Seventeen homogeneous O-glycopeptides were isolated from the fetuin degradation products by ion-exchange and reversed-phase HPLC. Their structures were determined by MALDI-TOF mass spectrometry and by analyses for amino acids, amino alcs., and carbohydrates. The application of the reaction for characterization of O-glycans and localization of O-glycosylation sites in O- and N,O-glycoproteins is discussed.

IT **299197-67-4**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(structure of fetuin degradation products obtained by reductive degradation with LiBH4-LiOH in aqueous tert-Bu alc.)
RN 299197-67-4 CAPLUS
CN 2-Pyrrolidinemethanol, 1-[(2S,3R)-3-[[O-(N-acetyl-α-neuraminosyl)-(2→3)-O-β-D-galactopyranosyl-(1→3)-2-(acetylamino)-2-deoxy-α-D-galactopyranosyl]oxy]-2-amino-1-oxobutyl]-, (2S)- (9CI) (CA INDEX NAME)

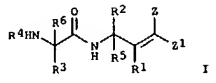
Absolute stereochemistry.

L10 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:757024 CAPLUS
DOCUMENT NUMBER: 128:13442
TITLE: Preparation of alkene pseudopeptides as picornavirus 3C protease inhibitors
INVENTOR(S): Webber, Stephen E.; Dragovich, Peter S.; Prins, Thomas J.; Reich, Siegfried H.; Little, Thomas L., Jr.; Littlefield, Ethel S.; Marakovits, Joseph T.; Babine, Robert E.; Bleckman, Ted M.
PATENT ASSIGNEE(S): Agouron Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 222 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

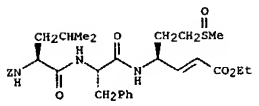
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9743305	A1	19971120	WO 1997-US8112	19970513
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5856530	A	19990105	US 1997-850398	19970502
CA 2254343	AA	19971120	CA 1997-2254343	19970513
AU 9730059	A1	19971205	AU 1997-30059	19970513
AU 722704	B2	20000810		
ZA 9704108	A	19980820	ZA 1997-4108	19970513
EP 910572	A1	19990428	EP 1997-924707	19970513
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000506903	T2	20000606	JP 1997-541076	19970513
TW 574226	B	20040201	TW 1997-86106355	19970513
KR 2000011019	A	20000225	KR 1998-709169	19981113
US 6214799	B1	20010410	US 1999-226205	19990107
US 6362166	B1	20020326	US 2000-689717	20001013
PRIORITY APPLN. INFO.:			US 1996-17666P	P 19960514
			US 1996-645687	A 19960514
			US 1997-850398	A 19970502
			WO 1997-US8112	W 19970513
			US 1999-226205	A3 19990107

OTHER SOURCE(S): MARPAT 128:13442
GI

L10 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



I



II

AB Picornaviral 3C protease inhibitors I [R1 = H, F, alkyl, OH, SH, O-alkyl, S-alkyl; R2, R5 = independently H, XY1A1(B1)D1, alkyl group different from XY1A1(B1)D1, with the proviso that both R2 and R5 ≠ H and when R2 or R5 = XY1A1(B1)D1, X = CH or CF and Y1 = CH or CF; R3, R6 = independently H, F, alkyl; ZR4 = H, OH, suitable organic group; Z, Z1 = independently H, F, alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, etc; XY1 form 3-membered ring with Q1, Q1 = CR10R11, O, X = CH, CF, Y = CH, CF, C-alkyl; R10, R11 = independently H, halo, alkyl; CR10R11 = cycloalkyl, heterocycloalkyl; X = CH2, CF2, CHF, S; Y1 = O, S, NR12,, CR12R14, CO, CS, C(CR13R14); R12 = H, alkyl; R13, R14 = independently H, F, alkyl; CR13R14 = cycloalkyl, heterocycloalkyl; A1 = C, CH, CF, S, P, Se, N, NR15, S(O), Se(O), P(OR15), P(NR15R16); R15, R16 = independently alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl; D1 = moiety containing electron lone pair capable of forming hydrogen bond; B1 = H, F, alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, OR17, SR17, NR1718, NR19NR17R18, NR17OR18; R17-R19 = H, any group R15; with provisos], and pharmaceutically acceptable salts thereof and prodrugs thereof, obtainable by chemical synthesis, inhibit or block the biol. activity of picornaviral 3C proteases. These compds., as well as pharmaceutical comps. that contain these compds., are suitable for treating patients or hosts infected with one or more picornaviruses. Several novel methods and intermediates can be used to prepare the novel picornaviral 3C protease inhibitors of the present invention. Thus, olefination of protected peptide aldehyde Z-L-Leu-L-Phe-L-Met(O)-H (Z = PhCH2OC), prepared in 3 steps from L-methioninol and Z-L-Leu-L-Phe-OH, with (carbethoxymethylene)triphenylphosphorane gave 74% title compound II. II and related alkene pseudopeptides were tested for inhibition of rhinovirus protease, with II showing Ki = 4.3 μM.

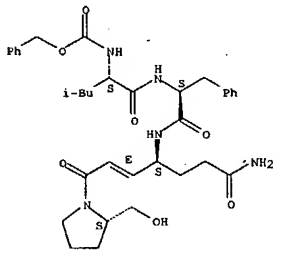
IT 199004-08-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of alkene pseudopeptides as picornavirus 3C protease inhibitors)

RN 199004-08-5 CAPLUS

CN L-Phenylalaninamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S,2E)-1-(3-amino-3-oxopropyl)-4-[(2S)-2-(hydroxymethyl)-1-pyrrolidinyl]-4-oxo-2-butenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

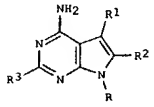


L10 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:640667 CAPLUS
DOCUMENT NUMBER: 127:318974
TITLE: Preparation of 7-heterocyclylpyrrolo[2,3-d]pyrimidines and analogs as protein tyrosine kinase pp60c-src inhibitors
INVENTOR(S): Altmann, Eva
PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Altmann, Eva
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9734895	A1	19970925	WO 1997-EP1095	19970305
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2249739	AA	19970925	CA 1997-2249739	19970305
AU 9721534	A1	19971010	AU 1997-21534	19970305
AU 716383	B2	20000224		
EP 888353	A1	19990107	EP 1997-914189	19970305
EP 888353	B1	20030709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CN 1216544	A	19990512	CN 1997-193839	19970305
CN 1079796	B	20020227		
BR 9709443	A	19990810	BR 1997-9443	19970305
NZ 331804	A	20000428	NZ 1997-331804	19970305
JP 2000506537	T2	20000530	JP 1997-533081	19970305
AT 244719	E	20030715	AT 1997-914189	19970305
PT 888353	T	20031128	PT 1997-914189	19970305
ES 2203793	T3	20040416	ES 1997-914189	19970305
US 6051577	A	20000418	US 1998-142548	19980910
NO 9804199	A	19981105	NO 1998-4199	19980911
PRIORITY APPLN. INFO.:			CH 1996-694 A	19960315
			WO 1997-EP1095 W	19970305

OTHER SOURCE(S): MARPAT 127:318974
GI



I

L10 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

AB Title compds. [I; R = R5Z(CH2)0-4; R1 = aryl; R2,R3 = H, halo, alkyl; R5 = H, alkyl, alkanoyl, alkoxycarbonyl, etc.; Z = (un)substituted pyrrolidine-1,2- or 1,3-diyl, -piperidine-1,2-, -1,3-, or -1,4-diyl] were prepared as protein tyrosine kinase pp60c-src inhibitors (no data). Thus, PhCOCH2NHAc was cyclocondensed with CH2(CN)2 and the product condensed with HC(OEt)3 and NH3 to give N-(3-cyano-4-phenyl-2-pyrrolyl)formamidine which was cyclized to give, after deprotection, I (R1 = Ph, R2 = R3 = H)(II; R = H) which was condensed with Me (2R,4R)-1-tert-butoxycarbonyl-4-tosyloxypyrrolidine-2-carboxylate to give, after deprotection, II [R = (2R,4S)-2-ethoxycarbonyl-4-pyrrolidinyl].

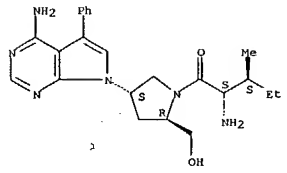
IT 197525-26-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 7-heterocyclylpyrrolo[2,3-d]pyrimidines and analogs as protein tyrosine kinase pp60c-src inhibitors)

RN 197525-26-1 CAPLUS

CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxopentyl)-4-(4-amino-5-phenyl-7H-pyrrolo[2,3-d]pyrimidin-7-yl)-, dihydrochloride, [2R-[1(2S*,3S*),2α,4β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 HCl

L10 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:536560 CAPLUS
DOCUMENT NUMBER: 115:136560
TITLE: Synthesis and biological evaluation of 4-purinylpyrrolidine nucleosides
AUTHOR(S): Peterson, Mark L.; Vince, Robert
CORPORATE SOURCE: Coll. Pharm., Univ. Minnesota, Minneapolis, MN, 55455, USA
SOURCE: Journal of Medicinal Chemistry (1991), 34(9), 2787-97
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

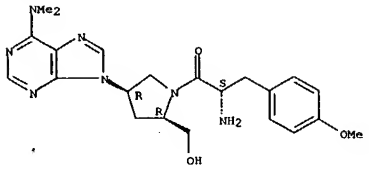
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The synthesis of several novel carbocyclic purine nucleosides which incorporate a nitrogen in place of carbon 3 of the cyclopentyl moiety are described. These analogs are derived from the key stereochem. defined intermediate N-(tert-butoxycarbonyl)-O-[(4-methoxyphenyl)diphenylmethyl]-trans-4-hydroxy-D-prolinol (I), which was accessible in 61.1% overall yield for a five-step sequence starting from cis-4-hydroxy-D-proline. The heterocyclic bases, 6-chloropurine and 2-amino-6-chloropurine, are efficiently introduced onto the pyrrolidine ring via a Mitsunobu-type coupling procedure with Ph3P and di-Et azodicarboxylate. Standard transformations and removal of protecting groups gave the cis-adenine, hypoxanthine, 2,6-diaminopurine, and guanine D-prolinol derivs. II (X = H, Y = NH2, OH; X = NH2, Y = MH2, OH). In addition, a related sequence from trans-4-hydroxy-L-proline provided the enantiomeric L-prolinol guanine derivative The 6-(dimethylamino)purine analog, was coupled to N-(benzyloxycarbonyl)-p-methoxy-L-phenylalanine to provide, after deprotection, the novel puromycin-like analog III. The analogs II and III were evaluated for antitumor and virucidal activity. These compds. failed to appreciably inhibit the growth of P388 mouse leukemia cells in vitro at concns. up to 100 μg/mL. In addition, they did not exhibit noticeable activity against the HIV or herpes simplex virus type 1 at concns. as high as 100 μM. The adenine analog, I (X = H, Y = NH2) proved to be a substrate for adenosine deaminase and possessed an affinity for the enzyme only 50% less than that of adenosine with a Ki = 85 μM.

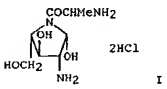
IT **135042-36-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, antileukemic, and virucidal activity of)
RN 135042-36-3 CAPLUS
CN 2-Pyrrolidinemethanol, 1-[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]-4-(6-(dimethylamino)-9H-purin-9-yl]-, [2R-[1(S*),2α,4α]]- (9CI)

L10 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
(CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1978:152891 CAPLUS
DOCUMENT NUMBER: 88:152891
TITLE: Studies on heterosugars. Part II. Synthesis of 2,4-diamino-2,4-dideoxy-L-arabinose derivatives (prumycin derivatives)
AUTHOR(S): Hsegawa, Akira; Sakurai, Tooru; Kiso, Makoto
CORPORATE SOURCE: Dep. Agric. Chem., Gifu Univ., Gifu, Japan
SOURCE: Agricultural and Biological Chemistry (1978), 42(1), 153-8
CODEN: ABCHA6; ISSN: 0002-1369
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

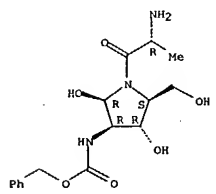


I

AB 2,4-Diamino-2,4-dideoxy-L-arabinose derivs. were prepared from benzyl 2-(benzyloxycarbonyl)amino-2-deoxy-β-D-glucofuranoside by a series of known reactions. Among the compds. prepared is furanoid prumycin I.

IT **66167-01-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and catalytic hydrogenolysis of)
RN 66167-01-9 CAPLUS
CN Carbamic acid, [1-(2-amino-1-oxopropyl)-2,4-dihydroxy-5-(hydroxymethyl)-3-pyrrolidinyl]-, phenylmethyl ester, [2R-[1(R*),2α,3α,4β,5α]]- (9CI) (CA INDEX NAME)

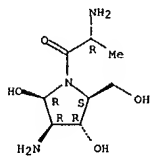
Absolute stereochemistry.



IT **66167-02-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 66167-02-0 CAPLUS
CN 2,4-Pyrrolidinediol, 3-amino-1-(2-amino-1-oxopropyl)-5-(hydroxymethyl)-,

L10 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
dihydrochloride, [2R-[1(R*),2α,3α,4β,5α]]- (9CI)
(CA INDEX NAME)

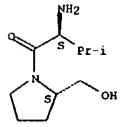
Absolute stereochemistry.



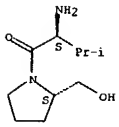
●2 HCl

L10 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:459253 CAPLUS
DOCUMENT NUMBER: 83:59253
TITLE: Antibiotic actinonin. VII. Mass spectra of actinonin and related compounds
AUTHOR(S): Anderson, Nicholas H.; Devlin, John P.; Jones, Stephen; Ollis, W. David; Thorpe, John E.
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (9), 852-7
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The mass spectrum of actinonin (I) was interpreted by comparison with the fragmentation of the model compds. II-V. The structure of I, except for the position of the pentyl substituent, was determined from the mass spectrum.
IT **54124-60-6**
RL: PRP (Properties)
(mass spectrum of)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

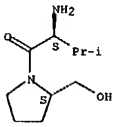


L10 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



L10 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:459252 CAPLUS
DOCUMENT NUMBER: 83:59252
TITLE: Antibiotic actinonin. VI. Synthesis of structural analogs of actinonin by dicyclohexylcarbodiimide coupling reactions
AUTHOR(S): Devlin, John P.; Ollis, W. David; Thorpe, John E.; Wright, Derek E.
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (9), 848-51
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Coupling of amino amides with monoesters of dicarboxylic acids with dicyclohexylcarbodiimide in CH2Cl2 gave dicarbamoyl esters, which with MeOH-NH2OH gave the corresponding hydroxamic acids, analogs of actinonin. E.g., DL-valylmorpholine with HO2CCH[(CH2)4Me]CO2Et gave the ester I, which gave the hydroxamic acid II.
IT **54124-60-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling reaction with dicarboxylic acid monoesters)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

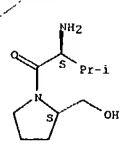


IT **54124-60-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with methanolic hydroxylamine)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

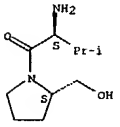
L10 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:459251 CAPLUS
DOCUMENT NUMBER: 83:59251
TITLE: Antibiotic actinonin. V. Synthesis of structural analogs of actinonin by the anhydride-ester method
AUTHOR(S): Devlin, John P.; Ollis, W. David; Thorpe, John E.
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (9), 846-8
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Succinic anhydride or its 4-pentyl derivative with amino amides gave dicarbamoyl carboxylic acids, the Me esters of which with NH2OH gave structural analogs of actinonin. E.g., succinic anhydride with alanylpyrrolidine gave the acid I. The ester II with NH2OH gave 52% of the hydroxamic acid III.
IT **54124-60-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling reaction with succinic anhydrides)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



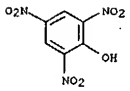
L10 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:459248 CAPLUS
DOCUMENT NUMBER: 83:59248
TITLE: Antibiotic actinonin. II. Total synthesis of actinonin and structural analogs by the isomaleimide method
AUTHOR(S): Anderson, Nicholas H.; Ollis, W. David; Thorpe, John E.; Ward, A. David
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (9), 825-30
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Valylprolinol with the isomaleimide I gave O-benzyldidehydroactinonin (II)
which on hydrogenation gave actinonin (III). Analogs IV-VI were prepared similarly from alanylpyrrolidine, valylpyrrolidine, and valylprolinol, resp.
IT **54124-60-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with isomaleimide derivative)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of

L10 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

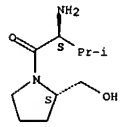


L10 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:459247 CAPLUS
DOCUMENT NUMBER: 83:59247
TITLE: Antibiotic actinonin. I. Constitution of actinonin. Natural hydroxamic acid with antibiotic activity
AUTHOR(S): Gordon, James J.; Devlin, John P.; East, Anthony J.; Ollis, W. David; Sutherland, Ian O.; Wright, Derek E.;
Ninet, Leon
CORPORATE SOURCE: Antibiot. Res. Stat., Med. Res. Counc., Clevedon, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (9), 819-25
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structure of actinonin (I), isolated from Streptomyces roseopallidus, was determined by degradation to its constituent residues, L-prolinol, valine,
D-pentylsuccinic acid, and hydroxylamine and from spectral data.
IT **56439-51-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 56439-51-1 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 54124-60-6
CMF C10 H20 N2 O2

Absolute stereochemistry.

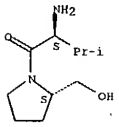


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7

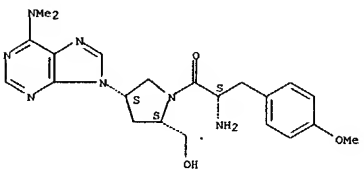
L10 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:535864 CAPLUS
DOCUMENT NUMBER: 81:135864
TITLE: Total synthesis of the antibiotic, actinonin
AUTHOR(S): Anderson, Nicholas H.; Ollis, W. David; Thorpe, John E.; Ward, A. David
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1974), (11), 420-1
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A regioselective and stereoselective synthesis of actinonin (I) from condensation of pentylmaleic anhydride with PhCH2ONH2 was described.
IT **54124-60-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction with isomaleimide)
RN 54124-60-6 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-amino-3-methyl-1-oxobutyl)-, [S-(R*,R*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



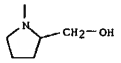
L10 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:108480 CAPLUS
DOCUMENT NUMBER: 80:108480
TITLE: Unconventional nucleotide analogs. XI. Synthesis of a nonsaccharidal analog of puromycin
AUTHOR(S): Kaspersen, Frans M.; Bieraugel, Hans; Pandit, Upendra K.
CORPORATE SOURCE: Org. Chem. Lab., Univ. Amsterdam, Amsterdam, Neth.
SOURCE: Heterocycles (1974), 2(1), 15-19
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The title puromycin analog (I), of interest because of analogy to nucleo-peptide models, is prepared Thus, (-)-4-hydroxy-L-proline was converted to II which on treatment with 5-amino-4,6-dichloropyrimidine followed by ring closure [(EtO)3CH] gave III (R = Cl, R1 = tosyl). Reaction of this with Me2NH and detosylation gave III (R = NMe2, R1 = H). Coupling of this with Cbz N-protected 4-MeOC6H4CH2CH(NH2)-CO2H gave, after removal of the Cbz group, I.
IT 51950-02-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 51950-02-8 CAPLUS
CN 2-Pyrrolidinemethanol, 1-[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]-4-[6-(dimethylamino)-9H-purin-9-yl]-, [2S-[1(R*),2α,4α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



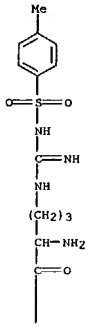
L10 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A



L10 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1966:482599 CAPLUS
DOCUMENT NUMBER: 65:82599
ORIGINAL REFERENCE NO.: 65:15497c-d
TITLE: Partial acid hydrolysis of γ-keratose
AUTHOR(S): Asquith, R. S.; Shaw, T.
CORPORATE SOURCE: Bradford Inst. Tech., Bradford, UK
SOURCE: J. Textile Inst. Trans. (1966), 57(6), 242-53
DOCUMENT TYPE: Journal
LANGUAGE: English
AB γ-Keratose was hydrolyzed 192 hrs. in 5N HCl at 37° to obtain a hydrolyzate in which, based on amino N determination, the average peptide chain length was 2 amino acid residues. The partial hydrolyzate was fractionated by ion exchange chromatography, two dimensional paper chromatography, and/(or) high voltage paper electrophoresis. Fifteen di- and tripeptides were identified and other peptides containing up to 5 amino acid residues also were found. Cysteylcysteic acid was shown to be present.
IT 7754-78-1, p-Toluenesulfonamide, N-[[4-amino-4-[[2-(hydroxymethyl)-1-pyrrolidinyl]carbonyl]butyl]amidino]-
(preparation of)
RN 7754-78-1 CAPLUS
CN Pyrrolidine, 2-(hydroxymethyl)-1-[N5-[(p-tolylsulfonyl)amidino]-L-ornithyl]-, L- (8CI) (CA INDEX NAME)

PAGE 1-A



=> LOGOFF
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	79.24	608.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-11.20	-19.60

STN INTERNATIONAL LOGOFF AT 16:04:52 ON 01 NOV 2004